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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,385	05/03/2005	Hiromitsu Nakayama	042748	5081

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EXAMINER

SANDERS, KRIELLION ANTIONETTE

ART UNIT PAPER NUMBER

1714

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/509,385

Applicant(s)

NAKAYAMA ET AL.

Examiner

Kriellion A. Sanders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/04, 5/05</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 3, 5 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is indefinite in that it describes the resin as a modification of a polyolefin resin (a).

Since the polyolefins are already claimed as modified polyolefin, it is not clear what applicant intends as a modification of these modified resins.

Claim 3 is indefinite in the use of the phrase, "thermally degraded polyolefin" This term is relative to the type and extent of thermal energy and degradation. Therefore the phrase does not define in either a quantitative or functional manner.

Claim 5 and dependent claim 8 are indefinite in the use of the phrase, "higher order polyolefin resin modification". This term is relative to the type and extent of "order" to which it is being compared. Therefore the phrase does not define in either a quantitative or functional manner.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claim 1-24 and 26-27 are rejected under 35 U.S.C. 102(a) as being anticipated by Ashihara et al. US Patent No. 6,277,912.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashihara, et al. US Patent No. 6,277,912.

Ashihara, et al. 6,277,912 discloses an aqueous, chlorinated *modified polyolefin*-based resin composition, which has an acid value of 1-500 mg KOH/g comprised of one or more polyolefins, which are modified with at least one of the following compounds:

(A) an  $\alpha,\beta$ -unsaturated carboxylic acid

(B) an acid anhydride

(C) one or more compounds having one or more double bonds in a molecule,

The weight-average molecular weight of the polymers of the invention is in the range of 1,000-300,000. The modification of the polyolefins is carried out in a solution of an organic solvent such as toluene and xylene, using  $\alpha,\beta$ -unsaturated carboxylic acids and/or their

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acid anhydrides and/or compounds having one or more double bonds in a molecule in the presence of a radical-generating agent. Suitable vinyl compounds used in the modification of the polyolefins include divinylbenzene, vinyl acetate and a vinyl ester of versatic acid, for example.

A two-part curable emulsion may use an oxazoline polymer in the invention. as an aqueous crosslinking agent having the oxazoline group introduced into the polymer as a pendant group. This crosslinking agent is used to cross-link the polymers having a carboxyl group and/or an acid anhydride group. The modified polyolefins and resulting compositions are used to produce various coating compositions. See col. 1, line 30, through col. 13, Line 6.

Patentee discloses a two-part curable emulsion which uses an oxazoline polymer. The oxazoline polymer is an aqueous crosslinking agent having the oxazoline group introduced into the polymer as a pendant group. The crosslinking agent is used to cross-link polymers having a carboxyl group and/or an acid anhydride group. It can form the crosslink when it is compounded at an appropriate compounding ratio and the coating film is baked or warmed. The oxazoline polymer is soluble or dispersible in water and has one or more oxazoline groups in its polymer molecule. Its main component polymer is of the (meth)acryl type, of the urethane type, and/or of the polyester type, etc. The preferable compounding ratio of the oxazoline polymer to the modified chlorinated polyolefin is in the range of 1:300-300:1.

Patentee further discloses blending with an aqueous polyurethane-based resin or an aqueous polyurethane-based emulsion, which has a good compatibility with the modified chlorinated polyolefin can be used. The polyurethane is a reaction product of a compound having an active hydrogen atom and a polyisocyanate, and can be obtained by the known

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methods, using a chain extender, a reaction-stopping agent and already known various additives as the need arises.

Various properties such as HLB, melting point and softening point, are inherent to the components used. Since patentee uses the same polymers as set forth in applicant's claims, the polymers of the patented invention are considered to have the same HLB, melting point and softening point as the polymers of applicant's invention.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashihara, et al. US Patent No. 6,277,912 as applied to claims 1-24 and 26-27 above and in view of the following remarks.

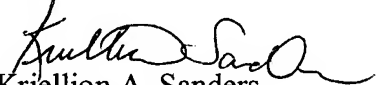
The application of topcoats to painted substrates is conventional to the ordinary layman or art-skilled. Nothing of a patentable nature is seen in this variation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 6:30-7:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Kriellion A. Sanders  
Primary Examiner  
Art Unit 1714

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